

Regenerating the Australian landscape of professional VET practice: Practitioner-driven changes to teaching and learning

Jane Figgis

AAAJ Consulting



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To find other material of interest, search VOCED (the UNESCO/NCVER international database <<http://www.voced.edu.au>>) using the following keywords: educational development; e-learning; innovation; learning method; personalised learning; skill development; teaching.

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About the research



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Teaching and learning is the core business of vocational education and training (VET) providers. That is why in late 2007 the National Centre for Vocational Education Research (NCVER) commissioned two authors to examine the characteristics, and find examples, of innovative teaching and learning practice in Australia and in Europe.

This is the Australian report, written by Jane Figgis, whose approach was to talk to managers and practitioners and get close to their field of endeavour. These people were keen to be involved because they concurred with NCVER's aim of initiating a conversation about their profession. This group of people were also keen to see good ideas translated into practice and to encourage the spread of good practice.

What follows, along with Yvonne Hillier's separate study of developments in the United Kingdom and Europe, formed the basis of a series of workshops across the country, where NCVER heard how practitioners can best use this research, and gathered further contributions to our knowledge of good teaching and learning in VET.

Key messages

- Six trends in contemporary practice deserve further consideration: using authentic learning tasks as the basis for learning; encouraging peer learning; applying e-learning technologies; using the workplace as the primary site for learning and skill development; personalising learning; and devolving support for teaching and learning so that it is close to the practitioner.
- Practitioners who actively think about changing their practice generally possess four characteristics. They are: reflective; responsive to and respectful of learners; closely engaged with local enterprises; and reach out to learn from and share their own knowledge with other practitioners.
- Networks can help practitioners to foster better professional practice and help them exchange ideas and resources.

The companion study by Yvonne Hillier can be found at <http://www.ncver.edu.au/publications/2137.html>.

Tom Karmel
Managing Director, NCVER

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Introduction

Donald Schön, the eminent American philosopher who was influential in developing the theory and practice of reflective professional learning, once famously pictured professional practice as a high, hard ground overlooking a swamp. The high ground is the place of theory and, one might add, of policy. The swampy lowland is where practitioners—here vocational education and training (VET) practitioners—meet the learners. It is where the skills, knowledge, and attitudes they wish to see instilled in learners are (or are not) acquired. The problems encountered in the swampy lowlands are messy and without definitive solutions. But, as Schon insists, these are the important problems. The solutions that practitioners contrive here make a difference to the learning and to the opportunities and lives of real people.

This report is of and for the swampy lowlands of VET practice. It is based on discussions with practitioners and with VET managers responsible for teaching and learning. It is about the ways people are changing their pedagogy, why, and with what results.

Many important and exciting things are happening on the ground. It was tempting to title the report *Fresh life emerges from the swampy lowlands of VET*, but then imagine what the media would make of such a statement! Nonetheless ‘fresh life’—fresh ideas *and* action—is really what it’s about.

I was asked by the National Centre for Vocational Education Research (NCVER) to ‘capture and analyse’ developments in vocational teaching and learning in the Australian VET sector, with an eye to what could, and perhaps should, inform future practice more broadly. I set about the task by contacting educational development units across a range of technical and further education (TAFE) institutes (28 in total) and asked them about innovative, exceptional or even just interesting approaches to teaching and learning among practitioners in their institutes. Practitioners who were seen as taking worthwhile and ‘interesting’ approaches to teaching and learning practice were also identified for me by the Australian Council for Private Education and Training, by the Institute for Trade Skills Excellence, and by knowledgeable colleagues in the sector.

I wanted to know, of course, what these practitioners were doing that made their work with learners stand out. What was it that drew their colleagues’ attention to them? I also wanted to know whether these people had changed their practice in major or incremental ways. Were they doing something new? If so, what were they responding to?

The features of the external environment driving change in the VET sector are well known. In a fierce global market, local businesses require skilled and knowledgeable workers to compete effectively. And they require these workers at a time of serious skill shortages. It follows that more Australians should be enhancing their vocational skills, either by engaging in training for the first time, or by upgrading existing skills and knowledge. Governments are responding with a range of programs and initiatives.

That is the big picture and practitioners in the sector are well aware of it.

But practitioners work with the little picture—with the local and the particular. Their fields of endeavour lie with their learners and the enterprises which employ or might employ them. Change at that level comes about when practitioners respond to what they observe in their working day. A few examples:

We wanted the pre-apprentices to be able to find employment and the way we were teaching, the stragglers especially, were not getting that. We also acknowledged that we were bored. And if we were bored, what about the students?

We began to see that even the diploma students were going out into employment as passive receivers, when what the industry wants and needs are proactive people. If we didn't deliver that, they would give up on our training.

We were troubled because the apprentices didn't seem fully engaged and their work was of poor quality. What we wanted was for them to love making furniture as much as we did.

I thought we had been teaching digital media quite well, but at an industry forum one employer stood up and said we were doing a terrible job!

There are also instances where new tools become available. One obvious example is the range and quality of e-learning resources available to practitioners. Appropriately supported, e-learning opens up opportunities for lecturers/trainers to work with learners (and enterprises and each other) in new and imaginative ways—ways that simply were not available ten, or even five, years ago.

Altogether, six distinct trends in the practice of teaching and learning could be discerned from the interview data. These changes in approach, at least in the hands of the responsive practitioner groups interviewed in this project, were leading to improved learning outcomes, improved learning, it has to be said, not only for the clients of the registered training organisations but also for the staff involved.

What also became clear was that practitioners who actively think about changing their practice share certain attitudes. They are: reflective; responsive to and respectful of learners; closely engaged with local enterprises; and reach out to learn from and share their own knowledge with other practitioners. These four qualities appear to establish a foundation from which practitioners could seriously consider rebuilding their practice. It is tempting to think of them as the nutrients from which fresh life springs.

In summary, the four attributes of practitioners nourish the fresh thinking that has resulted in the six trends bringing fresh life to teaching and learning in VET. They are what this report is about.¹ But another question was posed, rightly, at the beginning of this project: how will the findings be useful to and used by practitioners and by those responsible for teaching and learning in registered training organisations? The question deserves an answer.

Using this report to freshen teaching and learning in VET

The practitioners and managers who talked to me about what they were doing differently—what they were doing to make a difference for learners, for employers and, even for themselves as professionals—did so because they hoped their stories would get conversational balls rolling. They wanted their experience of changing their practice to encourage, even inspire, others to rethink their practice, their habits and assumptions.

¹ It may be useful to mention that all 47 people interviewed (who are listed in the appendix) received draft copies of this report. Several small inaccuracies were noted and have been corrected, but there was no quibble about—indeed, there was great interest in and support for—the trends and attributes identified.

Their conversations, and yours, inevitably take different paths, but three elements are fundamental.

- ✧ *Begin with detailed observing of the day-to-day:* what is actually happening as you provide/orchestrate the learning? Are the learners engaged? Are they demanding the best of themselves? Ask them what could be better. Ask yourself what one weakness in the provision you would like to change?
- ✧ *Ask about the [un-stated] assumptions you and your colleagues are making:* about the learners; about employers; about your organisation; and about the VET system. Are my colleagues making the same assumptions? Is there any clash of expectations here?
- ✧ *Talk openly and honestly about your observations, assumptions, conjectures and ideals:* the phrase that was repeated exactly and often by the successfully innovative practitioners was ‘we’re not precious about anything’.

The three elements are a starting point, but they consistently underpin and strengthen the process of renewal and refreshment.

There is a tale told about what makes a city a dynamic and vibrant place. I came across it many years ago and have never been able to relocate the source. It was told by an urban planner from India. You start, he said, with a small village. Picture the villagers as blue dots. There might be one person in the village who is exceptionally innovative. Colour this person red. Now picture a small town. The inhabitants are mostly blue dots but scattered amongst them are a few red ones. A large town now: you still have a sea of blue dots, but some of the red dots have collaborated and the interaction amongst them is driving their creativity to new heights. As the town grows larger, there are more pods of red dots. It becomes a city when the blue dots start turning purple.

This report has been written in that spirit. It is a rich amalgam of examples, ideas and possibilities about teaching and learning in VET that have been generated by innovative practitioners—by red dots—inhabiting the swampy lowland of practice. It is even the case that the VET red dots tend to work in pods. Most of the fresh practice described in this report emerged from work groups rather than from individual practitioners.

The report will have done its job if the work of the innovators presented here is amplified and extended by its readers, if they—you—talk to one another about the ideas given here and think seriously, but playfully, about the implications for their/your own practice. If the report generates argument and debate and experimentation, it will have achieved its aim. And the swamp will be turning a nice shade of purple.

Trends in teaching and learning in today's Australian VET

The VET sector is astonishingly diverse. To start with, there is the breadth of industries and subject areas. Then there are differences in the skill levels being developed, in the ages of the learners and their backgrounds. Registered training organisations in Australia differ markedly in size and scope; some are private, some public. In the face of this diversity, looking for trends in teaching and learning is a risky enterprise. Examples of good practice and of poor practice can always be found—the balance between the two is never publicly measured. Some people notice only the good; others only the poor. One person I interviewed told me of several cases of fantastic training (and trainers) which he had actually assessed, but despite his on-the-ground experience he finished by saying ‘TAFE is woeful’!

In this study I looked for examples of good practice. More than that, I looked for examples where this good practice was relatively recent—examples where practitioners had changed their approach to teaching and training. It is amongst this group of reflective and committed practitioners that the trends were observed. It doesn't make the trends less valid—these *are* the observable directions in which teaching/training is changing—but it does mean that the trends are not going to be observed in any (or every) randomly chosen corner of this diverse sector.

It is also important to say that these trends are not being ‘taught’, in an older or more familiar language—these trends are not presented here as prescriptions for their wholesale adoption. They are interesting and *potentially* useful. But if there is a single message from these trends, it is exactly that practitioners do best when they are responding to what they observe in their own corner of the swamp. Reading and talking about these trends might help them to improve on their best by suggesting ideas and techniques to experiment with, but innovation and continuous improvement in teaching and learning is fundamentally a bottom-up process.

Trend 1: Assigning authentic learning tasks

‘Learning by doing’ is almost a cliché, but no less true for that. Indeed, in many areas of vocational education and training, particularly in the trades and now in information technology (IT), starting learners with hands-on practical tasks and gradually introducing ‘theory’ has been a distinguishing feature of the pedagogy.

Authentic tasks, however, are different from simply practical tasks. An authentic task not only has real-world relevance (a context which reflects the way the skill and knowledge will be used in real life), but it needs to be a complex task completed over a sustained period of time, over days, weeks, even months, rather than minutes or hours.²

² There are other kinds of authenticity. Workplace learning is one example (see p.16). Another is what the NatFISH aquaculture group at North Coast Institute of TAFE does: have student assignments marked by people in the industry. The markers are given guidelines but, to ensure the marking is standardised and validated, each assignment is assessed by three people in the industry (they are paid for this).

Herrington, Oliver and Reeves (2003) have identified further characteristics of authentic tasks which help round out the picture of what a *complex, sustained, real-world activity* looks like. Authentic activities:

- ✧ are ill-defined, requiring learners to identify the tasks and sub-tasks needed to complete the activity
- ✧ provide the opportunity for students to examine the task from different perspectives using a variety of resources rather than allowing a single perspective, which learners must imitate to be successful
- ✧ provide the opportunity to reflect—indeed, the learners will have to make choices, think about what to do next, and why
- ✧ create polished products valuable in their own right rather than as preparation for something else
- ✧ allow competing solutions and diversity of outcomes
- ✧ are seamlessly integrated with assessment
- ✧ provide the opportunity to collaborate—collaboration is often integral to the task which might be impossible for an individual learner to accomplish.

The trend to base a significant portion of the learning of a particular unit/units (in a few cases, all the learning) on the completion of an authentic task has been driven by several factors. The most important is that the approach follows logically from a constructivist view of learning. The principle of constructivism—that learning is the outcome of the learner *actively* experiencing and reflecting and constructing meaning—has become thoroughly embedded in most spheres of education.

Amongst practitioners and managers in the VET sector in Australia, this constructivist orientation has been achieved through a range of mechanisms: through formal study in, for example, the Certificate IV in Training and Assessment, through professional development programs and Reframing the Future projects, and often just through osmosis or by intuition.³ While constructivism is anchored in modern cognitive psychology, it has its roots in the progressive education of John Dewey. Indeed, in 1916 Dewey eloquently described the rationale for using authentic tasks as the tool of choice for ensuring that learners develop and retain the desired skills, insight and understanding:

Methods which are permanently successful in formal education give the student something to do, not something to learn, but the doing is of such a nature as to demand thinking.

(quoted in Barnes, Christensen & Hansen 1994, p.5)

The trend to assign learning tasks that are authentic has been bolstered by the observation that these tasks—demanding, interesting, real-world tasks—motivate learners. In this, authentic tasks bear a striking resemblance to what the psychologist Csikszentmihalyi calls a *flow* activity or an *optimal experience*—the kind of experience that is so engaging that time seems to fly past unnoticed. ‘Flow’ arises when there is a perfect balance between the challenge set by an activity and the ‘stretch’ required to achieve it. If the stretch is too great (the challenge too hard), the person gives up. If the task is too easy (no stretch required), the task is just boring. But if the balance is set just right *and* the activity delivers ongoing feedback on how the person is progressing, then the activity will be fully engaging (Csikszentmihalyi 1992). His examples range from rock climbing

³ To be accurate, the theory(s) of learning/informing/teaching in today’s VET sector is eclectic, as it should be. Several accounts of the various strands of pedagogic thinking in the sector are available. See, for example, Chappell (2004); Waters (2005); and the papers produced in New South Wales through the NSW VET Pedagogy Project on the ICVET website. For the purpose here, however, the role of constructivism is the important consideration.

and cooking, to Yoga and painting. A well-conceived authentic learning task operates the same way.

Practitioners and managers of teaching/learning interviewed in this study described a variety of authentic tasks.⁴ What I noticed first was that such tasks could be invented in any industry area and at any competency level. What made even more of an impression was that when people started talking about these endeavours, the tone of the conversation shifted. A sense of delight—and I've thought about that word carefully, it's the right one—a tone of delight, of sparkle, entered their voices, as in the following the four stories.

Community Services: Institute of TAFE Tasmania, Sandra Templar

Certificate III students this year (2008) have an exceedingly authentic task. They have \$195 000 to spend to produce around 20 activities for the citizens of Burnie under the banner 'Burnie Moves'. The funding (a Commonwealth Healthy Active Australia grant) was awarded to Templar and her colleagues because in 2007 they established a number of projects for their students designed to give them a taste of real-world community services and to enable them to see the power of building on community strength with projects like 'Dare to Dance' for women with disabilities.

A student assignment in another course illustrates a different perspective on authentic tasks. It is difficult for community service students to work with genuinely troubled people. So what Templar and her colleagues did was to ask people in the industry—such as counsellors and social workers—to role-play these troubled clients, and they did so most convincingly.

The students had to make three appointments and, as in real life, sometimes the client didn't turn up. The students wrote up their case notes and compared their experiences with one another.

Templar says: 'Task-oriented young students respond well to this applied learning. At the moment, it seems not to suit older students who want to say: "You're the teacher and you're not doing your job—you should be telling me". But that old role is gone. It is just too easy to write down how to deal with conflict, but actually dealing with conflict is different and that's what they have to learn to do if they are to work in this field. They need real practice.'

Triple Trade VCAL (cabinetmaking, wood-machining and furniture-polishing): Kangan Batman Institute of TAFE, Mary Cushnahan

This pre-apprenticeship program is open to entering VCAL (Victorian Certificate of Applied Learning) students, all of whom have problems with literacy, numeracy and communication. Some have only Year 8 passes. Many have other issues. They are what are called 'high maintenance' students.

From day one this group of about a dozen 15 to 18-year-olds operates as a business, Falcon Furniture. A local children's furniture/bedroom company starts the group off with a contract for the delivery of children's plaques and bookmarks. This real customer walks the group through the contract. Once the product has been shipped, the profit is re-invested, for example, in buying the stock for a solid piece of furniture they can make for themselves.

Sometimes the group works as a whole, but on other occasions, especially when they are working on an order, they divide into teams, deciding who will be responsible for which aspect: sourcing raw materials, cutting lists, machining, prepping etc. The class (or the team) elects a foreman for the day. He/she is the *only* person who is allowed to come to the teacher.

The students have other roles in the business too: a CEO, treasurer, someone in charge of human resources, someone in charge of purchasing, and so forth. They have company meetings and have to write reports for these meetings.

'What surprised us,' says Cushnahan, 'is that, as we kept lifting the bar higher and higher, the students came closer and closer. Last year they pulled very tightly together as a group and set up, at three campuses of Kangan Batman, an exhibition of their pieces and took orders for products. This year's group is less mature but two weeks ago at an Expo at the City of Hume, a few of our students went and showed their skills, actively and enthusiastically explaining what they are doing.'

Cushnahan likes to say that what they have done is to 'take the teacher out of the equation'. But, in fact, what they have done is rewritten the equation. If there is an order and 500 items need to be sanded, the teaching staff will roll up their sleeves and help with the sanding. Last year they had 'slave-for-a-day', where other staff in the institute were invited to work for the company. Teachers, managers, the CEO signed up and the students had to induct them, instruct them in occupational health and safety (OHS), allocate them to certain tasks *and* be responsible for the work they produced!

4 There are other descriptions in the literature of interesting authentic tasks. Mitchell et al. (2003) provide a detailed example of the development of authentic learning in the re-engineering of textiles teaching at the Institute of TAFE Tasmania.

Plant and Heavy Vehicle: TAFE NSW Wetherill Park College, Phil Cue

Phil Cue and his colleagues have created an exceptional environment for the heavy vehicle apprentices who attend in block release for a five-day format. The environment is exceptional partly due the equipment they have: \$80 000 hydraulics test benches, for example, that were tailor-made to their specifications. However, it is the atmosphere of intense and serious work that makes it most exceptional.

The apprentices come in on Monday morning of the five-day block. Two are put into a bay with a running engine. Their task over the next five days is to take it right down to a bare block and then return it to a smoothly running engine. 'We force the 40-hour very tight timeframe and the emphasis on safety because our trade is taxing,' Cue says. 'With heavy vehicles someone will call and say: "get this fixed I'm going to Melbourne tonight".'

One of the eight-hour units, for example, focuses on diesel fuel. In that timeframe there are three practical tasks for each apprentice (removing the fuel pump, adjusting it, replacing it) and a theory assessment.

They also meet the challenges of OHS posed by this industry. The apprentices are working on big engines. With hydraulics, if someone were to pull out the wrong thing, the whole could come crashing down, literally. This also adds to that sense that learning here has consequences.

'It's a taxing role for our students but when we ask "How did you find that bunch of assessments?", they'd say: "hardest ever, but great".'

'It's part of the drive for who we are. We are passionate about the trade. It gets in your blood. We joke that people in the industry can quote the type of engine, diff, gear box, tyres on every vehicle in the state. And each vehicle will have a different set because they are tailor made for that operator.'

Construction apprentices: Blue Dog Training, Kris Andre

Blue Dog Training was set up in 2005 by three TAFE lecturers who believed that construction training could be done better and more flexibly—that apprentices needn't ever come into a TAFE institute. So the apprentices do all their practice within the authentic domain of their employer and study Blue Dog's comprehensive materials during the employer's down-time.

The interesting 'authentic task' is Blue Dog's electronic logbook, which has become a central and invigorating feature of its training. 'Filling in paper and pencil logbooks', according to Kris Andre, 'where apprentices are expected to write down each day what they did and how it applies to each unit is probably the least authentic and greatest drudge of the normal apprenticeship experience. There are many units, and tasks sometimes apply to several units, and the apprentices have to sort it all out.'

The apprentices do have to enter what they've done into the electronic logbook, but much of the cumbersome repetition has been removed. What makes it an 'authentic task' is:

- ♦ the scope for apprentices to add all sorts of artefacts to the logbook, not least snapshots of the work they've completed (and of themselves at work) taken with their mobile phones
 - ♦ the short quizzes embedded in the logbook (and behind each question there may be six or 12 variations), so if the apprentice gets a question wrong, the next time it is asked in a different way. And they can't go on until they've got it right. Further, if the apprentice hasn't made an entry about practical work for a week, they are automatically locked out of the theory part
 - ♦ the system generates on-site evaluation of a whole range of reports for licensing, for employers: the apprentices whole work history is there and when employers see that with the pictures and all, they are very impressed.
-

It must be acknowledged that teaching through authentic tasks—designing a task-based teaching system as distinct from a content-based one—makes new and quite challenging demands on practitioners. It is no small order to come up with tasks that are simultaneously effective in generating the requisite learning *and* achievable by the learners *and* deeply engaging. Further, learners themselves often need to be led gradually to this new way of learning. Practitioners report that it often takes several attempts before the approach works relatively predictably, and even then new learner cohorts or new bright ideas from the learners themselves may mean that re-adjustments, both minor and major, may be required.

The most difficult challenge in teaching through authentic tasks, by all accounts, is surrendering control. You are still responsible for the specified competencies and learning outcomes, but you are turning the process—the journey by which it's accomplished—over to these not-yet-competent people:

It is messy and chaotic—hard and challenging. It took us several years to use the process well—to stop us from interfering with the students' learning and let THEM learn.

It is a profound change from the teacher being the 'whole package'.

The approach certainly doesn't suit teachers who still like to think of teaching as performing; who like, let's be honest here, being the centre of attention.

There are credentialling issues, too, in relying on authentic tasks. Competencies and units of competency, as well as employability and generic skills, have to be mapped onto projects and problem-solving activities that can go off in unexpected directions. All this puts further pressures on systems for recording and processing student information.

This suggests that basing a significant part of a learning program on authentic tasks needs to be thought through very carefully. Yes, it can significantly—even dramatically—increase the quality of learning and of engagement. But there is a danger: the demand on the teacher's time and energy can be so great that the cost of the new practice outweighs the benefits (Hargreaves 2003). However, this was not a problem that arose for the VET practitioners here; if anything they were energised by the process, but it is a warning to take seriously.

Trend 2: Peer learning

Authentic tasks almost demand that learners work in groups, because the scope and standard are often greater—deliberately greater—than any single student could accomplish. What is interesting here are the examples of lecturers putting together groups whose members have quite disparate skills and even different skill levels.

Peer learning across different skill levels: Institute of TAFE Tasmania, Kerry Meredith-Sotiris

One activity in information technology (IT) at the Clarence campus of TAFE Tasmania is a simulated IT firm which 'employs' certificate III and IV and diploma students. Some of these students are already working in IT, others are pre-employment. The diploma students manage the firm, while the certificate III and IV students serve as the operational staff.

According to the IT team leader Kerry Meredith-Sotiris, there are clear benefits in having students work across levels. It is especially good for the certificate III students 'because they can observe diploma students at work. The experience shows them what it is possible to learn and achieve and that is enough to keep them there.'

But it is a learning environment that works well for all the students. 'Being able to work with others and be in a team is an essential skill for the industry and this is an effective way to learn how to work with a diverse assortment of others.'

Peer learning across disciplines: Mobile Entertainment Group Alliance, Peta Pash

The Mobile Entertainment Group Alliance (MEGA) is an intensive three-month program for companies and individuals wanting to create new mobile products or services and/or to improve their ability to innovate and commercialise such products and services.

MEGA operates through a series of workshops that effectively serve as an incubator for participants' ideas. Participants—they are called participants, not students, not learners—hear presentations and receive mentoring, but the heart of the program is the establishment of cross-disciplinary teams. Here the participants work with people of different ages, different interests and different skills. They also work under significant pressure—far faster than normally expected—preparing for the high-profile 'pitch day' where industry experts and investors hear about these potential products and services.

Peta Pash, MEGA Program Manager, points out that, in these cross-disciplinary teams, participants work with skill sets they are unlikely to see in normal educational silos. Her comment, 'Therefore they can't be precious', is telling. But the composition of these teams is important and the MEGA leaders now spend time carefully getting the balance and the chemistry of the teams right.

Peer learning works well in many instances—not only with 'bona fide' authentic tasks. Creating environments for both purposeful and casual collaboration among learners is being recognised (and provided) in a range of ways, as described below.

- ✧ Physical 'learning spaces' have been established where students can drop in and work informally. There is a technology room, for example, at West Coast TAFE, where students 'plunk down and talk to one another as they're working', as Harriet Wakelam describes it.

‘It’s quite a buzzy space. The interaction adds to their creativity and gives them confidence. It also extends their networks for the future.’

- ✧ Online chat rooms create peer-collaboration spaces. There are a host of examples. Julie Collareda recounted an instructive instance from her time teaching nursing online with students she would never meet face to face. She wanted her ‘chronic wound management’ students to understand that they needed to take a leadership role in explaining best practice, based on valid and reliable evidence, to doctors and patients, while recognising there were likely to be several other good arguments.

Collareda designed an online role-play for the students, but there was a catch. It was in the chat room afterwards discussing how the role play was working—what they were learning from the exercise—that really built their understanding. Collareda’s ‘take-home’ message:

It was the opposite of me, the teacher, telling the students and then assessing whether they had learned what I told them. In the chat room they constructed knowledge with one another.

- ✧ Week-long workshops are a feature of many certificate programs (and apprenticeships, although there they are not generally called workshops). Such intensive face-to-face periods lend themselves to peer collaboration. One head teacher starts the novices off the first day saying simply: ‘You will learn a lot off each other’. And they do.
- ✧ Peer collaborations can be quite short and still be effective. A recent example from higher education is intriguing:

Harvard physicist Eric Mazur realised his students’ understanding was poorer than it should be. To address this issue, he started periodically asking students to respond to a question about the material he’d just presented. The students were given one to two minutes to think about the question and formulate their own answer. Then they spent two to three minutes discussing their answers in groups of three to four, attempting to reach consensus on the correct answer. Their various groups’ ‘right answer’ is voted on electronically so the lecturer can see immediately what’s been understood or not.

Apparently it is the peer discussion and the problem solving skills that develop through these brief discussions (not the lecturer changing the presentation) that has lead to significant gains in measured understanding. (McWilliam & Jackson 2008)

It would stretch the accepted meaning of ‘communities of practice’ to say that these peer-learning groups are communities of practice. Nonetheless, they mirror some of the qualities that make such communities effective by fostering learning through social participation (Mitchell, Wood & Young 2001). It is particularly the sense that this is an active *experience* that makes these peer-learning collaborations particularly effective and memorable (see, for example, Pine & Gilmore 1999 on the importance of *experiencing* in contemporary society).

Trend 3: E-learning technologies

E-learning is flourishing in VET and developing along several different dimensions: as a tool for communication to and among learners; as a platform for engaging tasks; and as a source of resources. The Australian Flexible Learning Framework has been fundamental to this expansion, both by supporting e-learning and by comprehensively recording the developments. This material is available at <<http://www.flexiblelearning.net.au/flx/go>> and there is little point in repeating here what is available in much greater detail there. There are, however, a few points that might be usefully noted here.

I made a mistake when this project began. I told potential interviewees that I was interested in the ‘learning’ in e-learning, not the ‘e’. It didn’t take long for people to point out that this was a

ridiculous distinction. Brad Beach, Manager of Learning and Innovation at GippsTAFE, had several convincing examples illustrating the inseparability of the technology and the learning. One was the way Second Life⁵ was being used by one lecturer:

This was for the Diploma for Alcohol and Other Drugs Work. The lecturer wanted the students to understand what it's like for a person who is no longer drinking: the social pressure he/she will inevitably find himself/herself under. If you did it in a classroom role play, people would know who you were supposed to be. In Second Life the students all went into a virtual pub. No one knew who was who. The most amazing thing was that there were others in the pub who had nothing to do with the class—just inhabitants of Second Life who happened to be there—who were pressing this guy!

It might be argued that thinking about the learning should, in principle, always precede thinking about the technology. Certainly, many e-learning facilitators do ask practitioners what their teaching/learning goals are before they consider what e-learning tools might support or foster these. But there are equally legitimate cases where practitioners just play with the technology and then think how it might be used, like Second Life. Communicating with students through their mobile phones and personal digital assistants (PDAs) followed that route: here's a technology, can we use it? What about Facebook?

Starting with the technology can get people to rethink their assumptions about teaching and learning in the classroom. Beach gave the hypothetical example of a practitioner coming to him with an idea for working with students online in a new way, in which case Beach would reply:

Tell me what you will do to support the learners? What do you use as an ice-breaker in the classroom? Often they'll say, 'but I don't do an ice-breaker in my class'. 'Yes you do', I'll say. 'There is something you do, you don't just start teaching, what do you do?' So we go right back and reflect on what they do with students. We take each element and translate it into the new medium. It won't look the same or be the same but the intent is the same. What is interesting is how much of what they do in the classroom is just habit, not thought about as an intentional technique.

The point is that the 'e' and the 'learning' have to be tightly connected. They form a loop, influencing one another.

Four pieces of advice about e-learning came from the people interviewed:

- ✧ Just because something is online does not make it interesting. Indeed, classroom material simply parked online is almost bound to be uninteresting, and decidedly not using the medium to advantage.
- ✧ Not all young people are technologically savvy or love using the technology. Nor does every young person have a mobile phone.
- ✧ Using the technology well is not a one-off, but the beginning of a lifelong learning journey. This is the tenth anniversary of GippsTAFE's first online course. Ten years down the track Brad Beach is finding it easier to interest practitioners in the possibilities of e-learning—not the struggle it was at the beginning—but there are always practical issues to attend to, whether it is 'new' people taking up 'old' e-learning technologies, or the experienced hands coming to grips with the latest technologies.
- ✧ Policy does not deliver practice. What does work to spread the intelligent application of e-learning is having in place practical sustained examples that show there is a return on investment, perhaps in money, perhaps in improved student outcomes. This is swamp work:

5 Second Life is the three-dimensional virtual world available on the internet which has become 'a vast digital continent teeming with people, entertainment, experiences and opportunities'—all created by its millions of users, called residents <<http://secondlife.com>>.

the mechanism of lateral spread, although there are times when existing institutional (and sector) policies will need to be adjusted for an online environment.

Trend 4: Work-based learning

What we are talking about here is using people's active, natural engagement in their work as the primary vehicle for credentialled (or credential-able) learning. There are two critical elements in that sentence which need to be made explicit. Work-based learning in this context is *not* about:

- ✧ *Informal learning at work*: as important as that is, and as prevalent as it is, what we are concerned with in this project are trends in the 'delivery' of formal teaching/training recognised by the Australian Quality Training Framework (AQTF) (even if a formal qualification is not the outcome intended by the client).
- ✧ *Traditional 'classroom' (or training room) teaching conducted at the workplace*: this is not to say there is no place for such didactic teaching; of course there is. But our interest is in the ways workers can acquire defined skill sets and knowledge within the flow and culture of their (almost) normal work processes.

The interviews and literature highlighted a consistent theme: a practitioner from an external registered training organisation delivering specified learning outcomes in a way that does not disrupt (or only very minimally disrupts) the regular pattern of work takes him/her into new and difficult terrain. Harris, Simons and Moore (2005) actually titled their study of TAFE practitioners' ways of working with private enterprises, *A huge learning curve*.

There are practical reasons why teaching/training in this environment is a huge learning curve—why it requires a 'mental leap', to quote one interviewee, or perhaps several mental leaps:

- ✧ The actual task of teaching/training is different in this environment.

It's more holistic ... Delivery within a TAFE institute can be quite specialised but out in an enterprise you need to be able to tweak the whole training package, not just your slice of it. This requires new skills as well as new knowledge.

You need 'getting alongside' skills.

Judgement is central, being able to adapt in the moment. It takes some teachers a long way out of their comfort zone.

It has a just-in-time element to it ... you need to be able to turn on a dime. Part of what you're doing when you're embedded in a workplace is tapping into the informal learning that occurs in enterprises and render[ing] this more visible and, therefore, assessable.
- ✧ The power relationship is reversed: the environment is under the control of the enterprise, not the trainer.

You haven't got control of the situation—you're operating in someone else's patch. You have to understand their culture, fit in with their ways. It requires emotional intelligence. And extends to things like dress. Wear hard hats and parkas if that's what the others are wearing; wear suits and ties at Crown Casino.

You need to have a political understanding of each particular workplace ... Negotiating skills are critical in this environment.

But there is more going on in this trend to work-based teaching/learning than the practicalities of ensuring that individual workers acquire skill and knowledge for their (changing) jobs. What some enterprises and, indeed, whole communities are asking of VET is that it helps in overall workforce planning and capability development. This is what Challenger TAFE calls 'Paradigm 4 service delivery' and is illustrated in the way Lyndy Vella, Advanced Skills Lecturer at Challenger,

created a learning community of current and former information technology students (see box below).

Beyond work-based training to workforce development: Challenger TAFE, Lyndy Vella

In the past, some IT graduates from Challenger TAFE struggled to secure satisfactory employment. Lyndy Vella formed the view that if she could bring together employers and current IT students while the latter are still studying, she might not only assist graduates' employment prospects, she might also be able to address industry's need for well-skilled entrants to the workforce.

Lyndy decided to use a series of events and projects to start a learning community of current final year students and Challenger graduates from the previous five years who were now working in the IT industry. Friends such as vendors and industry partners were encouraged to sponsor and participate in this community.

It has worked well. Both groups are sharing knowledge and skills. Some of the graduates have decided to increase their qualifications and in the online environment the groups are supporting one another. The graduates also pass on job opportunities and mentor new graduates. It has also engaged employers in the industry. Vella says that it is not unusual for her to get a message while she's online from an employer asking if she can send someone over for some work.

Peter Waterhouse calls this ambition to change the practitioner's role from training/teaching to workforce development a 're-purposing of VET' or 'climbing up the hierarchy of VET purposes' (Waterhouse 2008). A reasonably extensive literature has developed about the ramifications of this re-purposing of VET (see, for example, Rainbird, Fuller & Munro 2004). Sefton, Waterhouse and Deacon (1994 quoted by Seddon 2008) point out that:

Teachers need to relinquish a comfortable place teaching their particular discipline, to explore how their expertise may apply within the context of the workplace. What counts is the teacher's capacity to see how his or her particular understandings and expertise may be used to support effective workplace learning and change.

The idea that the change in practice is so fundamental as to be transforming the identity of a VET practitioner was also noted by Chappell and Johnstone in their study of the changing roles of VET practitioners:

[VET practitioners] are being asked to have different understandings of their role in vocational education and training, to have different relationships with learners, to conceptualise their professional and vocational knowledge differently, to alter their relationship with their organisations, and to change their understanding of who they are in the VET sector. In other words, to change their identity at work.

(Chappell & Johnstone 2003, p.16)

No one expects that such a change to one's identity—nor even the change within the more familiar role of training individuals in the context of their normal work—will come easily. Many of the people from public sector registered training organisations interviewed for this project pointed out that it will take time, that 'we're not there yet'. Nor will such fundamental change be required of everyone: expectations of the sector are diverse rather than uniform.

Enterprise-based registered training organisations and many others in the private sector have had considerable experience in training employees in the workplace but they are also having to adapt to new roles and responsibilities as the workplace changes. Employers are asking their training providers to address the broader question of workforce capability and to involve themselves in business development (roles that are in many cases long overdue). First Impressions Resource, which was named Queensland's Private Training Provider of the Year in 2008, after being runner-up in 2007, is a good example of these changes.

Re-scoping the role of a registered training organisation in the retail industry: First Impressions Resources, Mike Wallace

First Impressions Resources (FIR)—which describes itself as the Australian Retail College—has been providing training services to the retail industry for 20 years. Over that period they have made many changes to their 'traditional' one-on-one training and assessment in the workplace. The most recent adjustments have been in response to the intensification of work on the shop floor and the pressure of time felt by staff.

It is the changing scope of the work that particularly interests Mike Wallace, General Manager of FIR. Retail businesses are asking FIR to solve their productivity problems, to help them plan the opening of a new store, to assess the overall quality of the shopping experience (FIR now offers a mystery shopper service) and, perhaps the most challenging of all, to develop effective staff retention strategies in an industry that is plagued by high staff turnover.

Wallace believes they have been able to meet these new demands in large measure because the training organisation's 32 trainers—all but four of whom are located outside the home office in Brisbane—come together annually to talk frankly about their on-the-ground experiences. In fact, before they meet, everyone fills in a survey about the issues as they observe them, so the discussion focuses in an informed and honest way on how things are and how they might be better. They invite some of their key clients into their deliberations. Indeed, senior FIR personnel meet monthly with key clients at head office level: these meetings are informed by, and in turn inform, on-the-ground trainers.

It should, however, be recognised that learning at work in the workplace is not always the best option. For example, most of the training for shearers at TAFE NSW Western Institute is in commercial sheds, but the team responsible for that training (David Crean, Jim Murray and Ian Chapman) has come to the view that the apprentices need some dedicated training at the TAFE institute's own shed in Dubbo. The problem is that, in a commercial shed, the pressure to keep shearing is intense. A typical production target would be 2000 sheep by eight shearers over two days. At Dubbo they will do 200–300 sheep, which means there is time to work on the apprentices' weak points, as well as giving them the opportunity to experiment, trying different ways of doing things.

The point is that the potential quality of the learning experience in different environments needs to be carefully calibrated. Practitioners must judge which aspects of the students'/trainees' learning can be most effectively developed in the workplace during the real work of production. Some may be more effective if simulated or simply presented and discussed away from the distractions and constraints of the workplace.

Trend 5: Personalising learning

Two aspects to 'personalising' learning were evident. The first is adjusting an individual's learning program in light of their prior learning and current competence. The second is personalised support for a learner through, for example, mentoring or coaching. Each involves a change in teaching/learning practice.

- ✧ Individual learning programs: there is a drive to begin all VET training with a recognition of prior learning (RPL) or recognition of current competence (RCC) process. This is in part a response to ongoing skill shortages: a tactic for making the journey to a qualification easier and faster. It is also, of course, good pedagogy to not subject learners to the repetition of skill and knowledge they already possess.

To practitioners and registered training organisations instituting recognition of prior learning processes, the change is fairly momentous—'the greatest we've seen', according to one manager (see box below).

- ✧ *Personalised support for learners*: mentoring and coaching have become part of a number of programs. It has to be said, however, that giving learners personal support does not require a special program. In fact, at some point during most of my conversations, the interviewee(s)

would mention, as obvious and unexceptional, that the best teaching/training—old and new—has at its heart a high-quality relationship between practitioner and learner:

What our trainers do is build rapport with apprentices and employers. That develops gradually over time but you know their babies, whether there are problems at home ... relationships are core.

While building relationships that are real and helpful takes time, it also takes skill. Factors that impact on a learner's ability to learn often involve personal circumstances that may be far removed from the practitioner's educational/training expertise: financial pressures, insecurity, illness, caring roles, and more. Resolving these problems is often the province of other professionals, but knowing that they operate and acknowledging their relevance is something that the best practitioners do as a matter of course. The mind-set which ensures practitioners will strive to establish these critical relationships is discussed further in the next chapter.

Formal mentoring, coaching and case management programs make relationship-building an explicit part of the VET teaching/learning course. None is as straightforward as it may at first appear.

Small Business Solutions, a program associated with Metropolitan South Institute of TAFE in Brisbane, uses mentors in a dual role. John Tucker explains:

We have a combined service. We offer business mentoring (which small businesses are interested in) and a qualification outcome (which they are not interested in—sometimes militantly hostile towards). Our mentors, all of whom have business acumen and entrepreneurial nous, have to seamlessly and simultaneously help the owner improve the business and acquire certifiable skills. It wouldn't work if the mentor did the mentoring and then said, okay, now we'll look at the certificate skills. The mentors had to learn how to do that. It is a bit of an art. We worked with the first ten mentors for 6/7 weeks before the program was launched.

Coaching is another mechanism to ensure that learners receive appropriate individual attention. The thinking behind using coaching in the shearing program at TAFE NSW Western Institute is interesting:

We made a conscious decision at the start that all of our staff would be coaches because a professional shearer is like a professional athlete. Just as in sport, we need to take into account the mental and physical capabilities of that particular trainee. If we're working with three shearers in the same shed trying to get to the same skill, we will often use three different ways of teaching. That's exactly what good coaches do: they facilitate the choice of options. This approach has developed since 2001. Back then we were very one-dimensional—assumed there is only one kind of learner.

The Australian Technical College in North Brisbane illustrates a slightly different approach to support—one that has managed to shift the retention rate for young trade apprentices from the overall state average of about 50%, to 95% among the college's trade apprentices. The college, which was established in 2007, is a government-funded but non-government-run upper secondary school designed specifically to improve the retention of young people at school and in apprenticeships. It is not so much the pedagogy but the ambience that the teaching staff have established that appears to make the difference, as Terry O'Hanlon-Rose, the principal, explains:

We don't have rules, we have standards. What we drill into our student-apprentices is that our business brand is an A+ and that they each carry the brand. So we ask: what sort of brand are you putting out today? There is an authenticity to it that the students pick up on. The other critical difference between what we offer and other schools is that the teachers here at the college and the trainers in the workplace work together to scaffold the kids across the boundary between school and work. And the kids notice: 'They're interested in

us!', they say. They might also have said 'They're confident there is a "best" in us that they can bring out.'

Wodonga TAFE illustrates both modes of personalising learning: individual learning programs; and personal support for each learner.

Personalised learning: Individualised programs, individualised support—Wodonga TAFE, Brian Smith

Wodonga TAFE is one of 13 Victorian TAFE institutes to house a Skills Store. Skills Stores, an initiative of the Victorian Government, provide a free skills assessment service for individuals and businesses. It is based on a software program, Competency Navigator, which allows a person to enter their presumed skills, either broadly or narrowly. The Competency Navigator then maps these skills onto training package competencies.

The individual then goes, in this case to Wodonga TAFE's Skills Store, where she/he is formally assessed through an RPL process. The program provides eligible applicants with a \$250 voucher towards the cost of this subsequent assessment and training.

The first role of the Wodonga practitioner in this scheme is to help the individual gather evidence for each competency and then to identify the gap training the individual needs.

The magnitude of the change in role—to gather evidence that is independent of what the teacher would have taught—should not be under-estimated. Exactly because of this, RPL is a practice that has traditionally not been enthusiastically embraced by TAFE practitioners. Doing it on the scale of Wodonga and the other Victorian TAFE institutes has required a major investment, not least in professional development.

Wodonga Institute is, in a sense, taking a further step beyond each individual simply having a tailored learning program. The institute's objective is to recognise each learner as an individual and, to that end, expects every individual will be case-managed.

According to Brian Smith, General Manager of Education at Wodonga TAFE, there is a business case for case management and this emphasis on the individual. 'If the learners are managed in a way that suits them, they will come back. We get repeat business (the business case). But it should inspire individuals to go for increasingly advanced skills: a benefit to them and the nation.'

Trend 6: Devolution of expertise within registered training organisations in support of fresh practice

Serious attention is being paid to ways in which the capability of VET practitioners is, and can be, enhanced and extended. The research consortium, *Supporting vocational education and training providers in building capability for the future*, has examined the cultures and policies of TAFE institutes (in particular) that enable them to respond effectively to the 'increasingly complex and changing' demands of clients (see Harris, Clayton & Chappell 2007).

Over the past five years (earlier in a few cases) most public registered training organisations have established units designed to improve the quality and effectiveness of the teaching/training programs offered. These support units go by a variety of names: 'teaching and learning'; 'educational development'; 'innovation'; or some combination of these. The original focus of these units was on what might be labelled 'traditional' professional development, where practitioners *come in* to learn about new developments and practices 'that work'.

What was striking is how many are—or are planning—to *go out* to practitioners. In effect, donning their waders and venturing into the swampy lowlands of practice.

- ✧ At Canberra Institute of Technology the curriculum and e-learning support staff are out-posted to the institute's 16 centres, each with a strong discipline focus. These 16 centres are the consequence of a relatively recent restructure, where previously there were five large faculties. Stephen Darwin, Director of the Centre for Education Excellence, pointed out that this works much better in terms of thinking innovatively about teaching and learning. 'Innovation resonates more in a discipline than as a generic concept. You can think more specifically, authentically about what one might do.' It is interesting in this context to note that the Carrick Institute for Teaching and Learning in Higher Education has taken the view

that a discipline-specific approach is 'the optimum way' to ensure improvement in teaching and learning (Carrick Institute 2007).

- ✧ TAFE SA (Adelaide North) is putting in place a brokerage model where the Manager of the Teaching, Learning, Innovation and Professional Development Unit will go out to individual work teams. The idea is to start a conversation with each team about what is happening in their industry, what they will be expected to deliver in a demand-driven environment over the next two to five years, and analyse what that might mean in terms of new teaching practices. Mark Hunwicks, Manager of the unit, believes from past experience that 'if I ask the right questions, frequently they'll have answers we can work from. I am not the expert telling them what to do, but probing them along. My role is to coach/mentor these groups and introduce support where needed'.
- ✧ The University of Ballarat TAFE Division has 'elfs': e-learning facilitators (I'm told that on occasion they do dress in green!). The elfs work in their own departments where they know the staff, the students and the training packages well. In fact, they did not necessarily start out with great e-learning expertise, but were selected for the program because of their interest and enthusiasm. Their elf work is a fractional appointment (between .3 and .6 of their time). In this environment staff are comfortable approaching their elf and saying: 'This is what I'd like to change in my teaching'. But while the elfs are housed in their own departments, they are coordinated centrally so they can be introduced to new technologies and learn from one another.

What is interesting and pleasing is that these support staff are using the same techniques to develop the skill and knowledge of practitioners, as are the innovative practitioners with their own students. Thus, the stories of what these teaching/learning support units are doing precisely mirrors the trends described above. They are using:

- ✧ *Authentic tasks*: at the TAFE NSW Sydney Institute they are rolling out a new strategy where 12 learning technology mentors will be working with selected teaching staff (mentees) over a 10-week period. Each mentee will be asked to do one thing differently with their group of students during that time. It can be a small thing, but it will, by definition, be real.
- ✧ *Peer learning*: Rosie Greenfield and Jan Wallbridge work with vocational education and further education staff at Victoria University through the Diploma of VET Practice.

We want to model that teaching/training is 'not telling', so we set them into action learning groups. Staff are encouraged to work in these groups to decide what they would like to investigate. This may involve first of all pairing up to observe one another's practice. Through this process each action learning group decides which aspects of teaching and learning they would like to explore further. It leads them to decide what they need to 'action learn' together for the rest of the year.

- ✧ *E-learning*: e-learning is the focus of many of the teaching/learning support units. A number of institutes have specific numerical targets for the increased use of the technologies. Consequently, research about what is available and being used elsewhere constitutes a significant aspect of the work of teaching/learning support units. Graeme Kirkwood, Manager of Learning Development at TAFE Tasmania, for example, is interested in games-based learning. He has also been investigating the possible uses of Second Life as a learning environment (as described earlier) and a few delivery teams are involved in action research projects using Second Life.
- ✧ *Work-based learning*: Sue Goodbourn in the TAFE Development Unit at the University of Ballarat describes part of her role as 'keeping an ear to the ground and listening to what teachers/trainers are saying to one another'. The reason for that?

If you ask practitioners whether there are things they'd like to see changed, their first response will often be 'no', even though privately they will complain bitterly about the students not paying attention, for example. If you think about it, they're blaming the students. They are working from a deficit model of the students, despite their thinking that

they always put the students first. So it's my job to dig underneath and see what the teaching/learning issues actually are that need to be addressed.

- ✧ *Personalised learning programs and support*: going out to teaching teams is almost automatically accompanied by tailoring support to the groups' needs (perceived or developed). The support is localised and in many cases fully personalised one-on-one support. A number of interviewees commented that their own skill and knowledge evolved by 'working with someone who knew a little bit more than I did'.

Observations about these trends

A coherent pattern

The six ways that teaching/learning practices are being refreshed by innovative practitioners and teaching/learning managers detailed in this section—the trends, as I've called them—can be visualised as parallel tracks. And like train tracks, they sometimes cross or even merge for a distance before they separate (slightly) again.

This overlap is obvious in the examples cited immediately above about the practices used by teaching/learning support units to enhance the skills of their VET practitioners. What I put under the category 'e-learning', for example, could as easily have been catalogued as an 'authentic task'. All the approaches to practitioner learning were work-based and the support for that learning was personalised.

That resonance amongst the 'trends' can also be seen in the practices of innovative teachers/trainers. Where practitioners use authentic tasks, they almost automatically create a learning environment where peers learn from one another and where they pay attention to learners as individuals. It works the other way, too: practitioners who are interested in more supportive and personalised learning environments are attracted to authentic tasks as a mode of learning.

The point is that these tracks—these trends—basically take practitioners to a single destination: to a place where the students (clients) are active and engaged. This is what one interviewee referred to as a place of *rich learning*. The techniques reinforce one another and each can amplify the value of the others.

Informal learning's central role

This is not the place to get into a nuanced discussion about the meaning and character of 'informal learning'. What I want to flag is the liveliness that seems part and parcel of the six trends in teaching and learning. I would suggest that the sense of vitality comes from the fact that each leaves open—and invites in—a considerable element of informal learning, of 'extra' learning that was unplanned but not unintended.

When architects search for what they are reacting to or they come across an especially good building, language fails them. They end up saying simply that the structure has a kind of magic to it. I wonder if making room for informal learning in all these fresh practices does something similar for VET provision—bringing life, energy, unpredictability, *something* that adds magically to the learning (and teaching/training) experience.

Traditional ‘teacher’ role extended and reshaped

It is not that traditional teachers simply stood and delivered. To an extent, all the ‘trend’ elements highlighted already hover in VET practice. But by becoming more prominent, by a subtle insistence that these are now *fully* the work of VET, the traditional teacher role has markedly shifted. Early in this study, Peter Skippington in Queensland’s Department of Education, Training and the Arts suggested that what this project should do is answer the question: ‘What is the role of a VET teacher?’

That is a challenging question: what exactly is a VET teacher’s role today? The trends observed in teaching/training/learning show that the role has been expanding and made more demanding. Developing learners’ skill and knowledge through authentic tasks, peer learning, e-learning, personalised learning, and work-based learning profoundly extends the old role.

When looked at through the lens of these fresh dimensions to teaching/learning practice, it may be relevant to also ask: is it reasonable to expect individual practitioners to possess this range of expertise? Perhaps the Skippington question is actually: what are the roles and purposes of VET practitioners? And the answer is: there are many roles. Further, it may be only rarely that a single individual will be talented enough to fulfil them all effectively.

The fact that so many of the innovative practitioners were innovative as a team—and reached out to others both inside and outside the organisation—suggests that good practice comes increasingly from practitioner pods, where colleagues apply a diverse set of skills to teaching/learning. That makes sense, as Hugh Guthrie, one of the interviewees, likes to point out:

There are the individual ‘ah ha’ moments to be sure, but there is real power in a work group reflecting on their collective effort. One of the problems with being an individual ‘reflector’ is that you can feel, and be, a lone voice. But where a group has developed the habit of thinking things through together, then refreshing teaching and learning—even a major change in direction towards a new common purpose—is ‘just what we do here’. That is not to say bringing about fundamental change is ever actually easy, but bringing different hands and perspectives to it helps.

A conjecture: practitioner ‘pods’ may be creating secure ground in the swampy lowland of practice.

The missing trend: Fresh thinking about assessment

Three elements operate in the development of vocational skill and knowledge: teaching, learning *and assessment*. But assessment was only occasionally mentioned by practitioners or by the registered training organisation managers responsible for teaching and learning. That might be partly my fault: the one-pager I sent to people before our interview described this project as:

... a return to the coal face to take a close look at what is new and effective in how teachers are teaching, trainers are training and assessors assessing. We’re interested in the decisions these practitioners have made, or make, about what they *do* that improves the quality of teaching and learning.

So even though I did mention assessment, the lens appeared to be focused on high-quality ‘teaching and learning’.

Assessment was not completely absent from the discussions. Practitioners who described teaching through authentic tasks alluded to it. Mary Cushnahan could not have observed that ‘as we lifted the bar higher, the [VCAL] students came closer and closer’ if they had not been carefully judging attitude and achievement and adjusting the standards to stretch the students just

that bit further. Similarly, the Plant and Heavy Vehicle group at TAFE NSW Wetherill Park College mentioned that their apprentices found the pressured tasks they were asked to do ‘the hardest assessments ever, but great’. There was, however, only one case where the assessment tool itself was the fresh and significant element in teaching/learning through authentic tasks. Blue Dog Training’s electronic logbook was designed to motivate the construction apprentices and to enable the trainers to vigilantly track what the apprentices were or were not doing.

A number of the trends in teaching/learning tend to involve the learners in group work, for example, peer learning, e-learning, and authentic tasks. One might have expected that this added enough complexity to assessment such that more innovative practitioners would be grappling with it. How is individual performance assessed? Are teachers and trainers using peer-assessment approaches to gain insight into individual attainment? Where’s the innovation?

Similarly with recognition of prior learning: this process requires practitioners to evaluate evidence of competencies—competencies which they have not taught. Several jurisdictions are anticipating that eventually all learners will commence their vocational education program with this process. Recognition of prior learning came up for discussion, but it was clear that the sophisticated and innovative approaches to assessment it demands not only remain a challenge, but largely one for another day.

Even at the level of ‘ordinary’ assessment, one might have expected more discussion about the complexities and subtleties of high-quality assessment. Whatever task learners have been set, assessment questions arise: what do the practitioners expect to see? What’s their bottom line? These questions are not easily answered, certainly not easily *consistently* answered across a body of practitioners. But interest in moderation and validation was generally absent. No one expressed an interest in testing and trialling assessment regimes.

So, a question: are the six observable—and admirable, interesting, productive—trends currently refreshing teaching and learning in VET missing a companion? Should there be a seventh? Should we be asking for diverse and intelligent innovations in assessment in the sector?⁶

6 Peter Smith and Damian Blake (2006) have produced a succinct analysis of the role of assessment and negotiated assessment in improving teaching that may be a useful starting point.

Practitioner attributes that nourish fresh thinking and action

If this report were merely to recount the developments described in the previous chapter—the six observed trends—it would have fulfilled its formal brief, a brief concerned with the changes to teaching/learning being put in place by innovative VET practitioners and encouraged by far-sighted teaching/learning managers. However, it would somehow have missed something essential. The specific practices are interesting and important. But something else is going on and that is something that underpins the *doing*, something that might explain why some practitioners find the power to move in directions that are unfamiliar and uncertain *to them*, while many of their colleagues have not—or have not yet.

Four sensibilities appear to be at work in the thinking of innovative practitioners. These are obvious and unsurprising sensibilities, but a report about trends in VET practice is incomplete without some attention to them. Innovative practitioners are:

- ✧ reflective of their practice
- ✧ responsive to their learners
- ✧ engaged with local enterprises
- ✧ engaged with one another.

It must be said that there would be very few VET practitioners in Australia who do not share these traits to some extent. It is the degree that makes the difference: whether the characteristics of being reflective, responsive, engaged with industry and with colleagues are sufficiently strong and compelling to enable a practitioner to open him/herself to change—to agree, as one theologian expressed it, ‘to put their own understanding of things at risk’.

Reflective practice

The virtue of reflective practice does not need to be repeated here. The improvements to both teaching and learning that follow from reflection were amply demonstrated in the previous section. What might be useful to consider here, and it was a subject specifically discussed with many of the interviewees, is why in-depth critical reflection about one’s work is something most of us actually avoid, even as we acknowledge it is the right thing to do.

Part of the answer is clear. Practitioners in vocational education and training are by and large trying to do the best job they can. It might not look ‘best’ to an outsider, but that’s what they know how to do. It actually takes rather uncommon—courageous—people to acknowledge that their ‘best’ might not actually be good enough, or not as good as it could be. One interviewee made the interesting point:

It’s difficult to take another perspective—to step back and examine oneself critically from different vantage points. I saw some research that found that, of all groups, professionals find it the hardest to reflect critically precisely because they start with such a high level of expertise. A Catch-22 if ever there was one.

Many systems have been designed to lead professionals to and through reflective practice (see, for example, Redmond 2004). The popular Brookfield model⁷ invites people to think about their practice (and values) from various perspectives: how does the learner perceive what you do? How do your colleagues? Employers? What does your work look like through the lens of theory? But the real strength of the Brookfield model is that it is less about critiquing one's performance as it is about identifying the assumptions underlying that performance.

In this approach to reflection the goal is not necessarily to change practice. It is to get in touch with 'the inner you', to use the language of TAFE SA's Steve Wold: 'to reflect on how your assumptions *and feelings* affect your practice'. While this might sound a little less threatening than critiquing performance, Wold says it is not, 'It can be a painful and disturbing process because there are layers of assumptions to peel through and you may not like what you see'.

The 'star rating scheme' developed in 2007 by the Institute of Trade Skills Excellence is proving to be an interesting and effective tool for reflection. The first step in being awarded a star rating is for the school or faculty to submit a self-evaluation based around three categories⁸:

- ✧ *A focus on the needs of enterprises and learners*: this category examines how the training unit captures and uses information on enterprise and learner needs to design and deliver training and assessment programs.
- ✧ *Excellent trainers and assessors, and state-of-the-art resources*: this category examines how the training unit ensures that its trainers and assessors are of the highest calibre in terms of knowledge and industry experience and offers state-of-the-art equipment and facilities for delivery of training.
- ✧ *Empowered enterprises and learners*: this category examines how the training unit provides advice and tailored support services to enterprises and learners and how it promotes innovative delivery and trade occupations.

Completing the self-evaluation inevitably generates serious analysis of the 'whats' and 'whys' of the group—and how they can prove that they meet the criteria. The on-site evaluation by respected industry experts, trained for these evaluations, and the resulting feedback pushes the whole process of reflection along. The star rating process is rigorous and is proving popular precisely because it is. Within a month of the scheme beginning, 100 applications for rating had been received.

The initial point—that making changes to one's practice and even reflecting on one's practice can be a daunting and uncertain process—remains true. There was some consensus amongst the interviewees that it takes a bit of courage to do it. Why courage? Peter Waterhouse explained it aptly: 'Because you feel trepidation but you do it anyway'.

Innovative VET practitioners are clearly a brave lot, almost by definition, because they have reflected on and changed practice. It's instructive to listen to them:

We have a brilliant and unique department with the five of us. We're all quite focused on student outcomes. And as a team, we're not precious about anything. We share and we constantly review everything. It gives us the ability to say 'we all hate this bit', so we put our heads together.

It's important that the teachers can network amongst themselves. They work on different campuses, it can be isolating. We bring them together a few times a year but they find ways

⁷ Many university websites describe and explain Stephen Brookfield's 1995 model. See, for example, <<http://cstl.syr.edu/cstl2/home/Teaching%20Support/Teaching%20Practice/141000.htm>>.

⁸ See <<http://www.tradeskills.com.au/documents/070821%20Updates/Evaluation%20criteria.pdf>> for more detail.

to stay connected: they talk together or online and learn from one another. They have no fear of saying ‘maybe we could do it better’.

Responsive to learners

Finding out what the learners want and what they expect is embedded in many of the practices illustrated in this report (and in others that were discussed by people interviewed but have not been specifically described). However, there is a dimension to ‘responsiveness’ apparent in the attitudes of the interviewees that goes beyond open communication and careful listening. It is the *respect* that these practitioners have for their clients.

There are hints of this respect in the challenging nature of the authentic tasks they give learners and in the personalised relationships they build. It also comes through in the emphasis a number of interviewees placed on taking a strengths-based approach to teaching/training and professional development. TAFE NSW International Centre for VET Teaching and Learning (ICVET) has been one of the leaders in explaining and promoting this way of thinking about learners:

A strengths-based approach operates on the assumption that people have strengths and resources for their own empowerment. Traditional teaching and professional development models concentrate on deficit-based approaches, ignoring the strengths and experiences of the participants. (TAFE NSW International Centre for VET Teaching and Learning)

Much of the literature on life-based and strengths-based approaches to teaching and learning focuses on adult learners and organisational development. But I found examples of this mind-set, if not the actual terminology, in teachers and trainers working with pre-employment learners, school-based apprentices and other entry-level young people. Mary Cushnahan, the Triple VCAL Coordinator at Kangan Batman TAFE, exemplifies this attitude to the young people in their program, whom she described (see p.11) as ‘high maintenance’ students:

You have to understand and accept the students who turn up. We toyed just the other day with the idea of promoting this Triple VCAL pre-apprenticeship to all Year 11 students. As great as that would be for us as teachers—it would make our lives easier—those other Year 11 students would probably gain employment anyhow. The students we get are the ones who most benefit from our program: the early school leavers, the problem students, the ones with poor literacy and numeracy. Those are the students who need us. They make our job massively more difficult but that’s who we’ll stick with ...

And they repay our trust in them. We don’t check their backgrounds. We tell them this is a fresh start. On camps we don’t lock our cameras and wallets away. And they rise to the occasion. Even the ones who come in with only Year 8 levels leave a year later with a base Year 11. They really accomplish a lot.

The recognition that the learners don’t have to be on an equal footing with the practitioner to deserve respect—respect for their existing strengths and, even more, for their potential—takes the idea of student-centred learning to an entirely different plane.

Engaged with local enterprises

It would be difficult to find a policy document or report about skills and vocational education and training in Australia that does *not* point to the importance of the VET sector engaging with industry. In this study, as befits a work immersed in the swampy lowlands of practice, the initiatives observed are not so much practitioners engaged with ‘industry’ but practitioners connected with local businesses.

It is the difference between an abstract knowledge of broad industry requirements and talking on the phone or chatting on site with the individuals who make up the local economy. The following are two examples of this connectedness.

- ✧ NatFISH, the aquaculture program at TAFE NSW North Coast Institute counts among its full-time staff: an owner of a medium-sized fish farm; a former employee of one of the state's largest fish farms, who is currently writing a manual on export for the local Fish Co-op; and the owner of a hatchery.
- ✧ The shearers group from TAFE NSW Western Institute (David Crean, Jim Murray and Ian Chapman) not only trial new techniques for the industry but compete internationally (and successfully) in shearing competitions.

These personal relationships, which develop gradually but naturally between practitioners and local enterprises, differ also from the formal commercial partnerships which registered training organisations enter into with enterprises. The latter, as Callan and Ashworth (2004) point out, are pursued as business development opportunities for the registered training organisation and negotiated by senior management. Indeed, the trust and openness which characterises practitioner-led relationships with enterprises is often developed only with great difficulty in formal commercial partnerships. One might say that trust is more easily grown in the swampy lowlands of practice than at the crystalline heights of negotiated agreements. Nonetheless, it is worth pointing out that trust is required, because enterprises and practitioners may well come to their relationship holding different expectations about learning and assessment.

It is the personal involvement with local enterprises that allowed practitioners to devise the authentic tasks in information technology, community services, construction, and heavy vehicles, described in the first chapter. It also leads practitioners to continually rethink their practice, their standards and their ambitions. A number of interviewees mentioned that staff recruited fresh from industry were often more reflective of their practice than longer-serving teachers/trainers. Some of that can be attributed to the fact that these newcomers are transparently 'just learning', not needing to pretend to, or defend, an expertise about teaching and learning. But some of that willingness to engage in creative reflection comes from their clearer, more nuanced picture of how skill and knowledge are actually being used now and in the foreseeable future by local enterprises.

This direct involvement with the way local employers actually operate is the basis of a skill ecosystem.⁹ Skill ecosystems are built from the premise that skill formation 'is not and can never be, a stand-alone issue' (Buchanan et al. 2001, p.27). How well workers' skills are used, or not used, is determined more by the workplace than by the individual's own competency and knowledge. Only one of the fresh practices mentioned in this report is premised on the skill ecosystem model (MEGA), but wherever there is that genuine ongoing personal connection of training provider(s) with industry, the essential character of a skill ecosystem is in place. Skill ecosystems are valued because they extend the capability of a whole local industry or community, which is what connectedness does, as the shearers in New South Wales illustrate:

The secret of our success: we don't do anything without consulting Shearing Contractors Assn, etc.—we would never go in and say we are going to change the program or our delivery methodology without carefully discussing the plan with them first ... We believe we've only just started: who says the way we're shearing now is the best way? We muck about with sheep at home. And we've been lucky as a team: for example, we've been

⁹ A skill ecosystem refers to a concentration of workforce skills and knowledge in an industry or a region, for example, the South Australian wine industry or the super funds management industry in Melbourne and Sydney, where the interdependencies between enterprises, individuals and institutions (for example, education and training providers) generate innovation and dynamism for the industry as a whole.

contracted by industry to trial a totally different way of shearing: upright posture shearing platforms (like doing the ironing!).

Engaged with other practitioners

The quote above from the shearer is one critical direction in which ‘connectedness’ builds quality. The other line of connection is with other practitioners. Attention was drawn earlier to the fact that so many innovative practitioners were innovative *as a team*. What was glossed over there was that for many of these practitioners, working with and learning from colleagues extended well beyond the immediate work group—indeed, beyond the organisation and often well beyond Australia. In a word, innovative practitioners *network*.

The revolution in communication has made it possible for practitioners to not only access extraordinary amounts of information about teaching, learning and assessment relevant to their subject or their students, but also to connect with real people also interested in those things.

It is hardly surprising that practitioners interested in e-learning are building particularly dynamic and productive practitioner networks using cutting-edge technologies. The Digital Storytelling Network illustrates the way an e-learning innovation can grow and actually become embedded, and thereby sustained, through systematic networking in the VET sector (Jasinski 2006). The network, facilitated by Carole McCulloch, sees itself as having an explicitly educative function for practitioners, not merely as a site where they can share experiences. She explains:

I like the idea of sharing stories of experience. But I use it as a way of guiding and mentoring online. I have a motto about mentoring which works well: ‘Lead, follow and get out of the way’. It is important to take the lead initially, especially if your group is new to e-learning. But quite soon I try simply to follow what they are doing. I give them feedback and suggestions for improvement. I share my knowledge with them in as many different ways as I can. But I do look for the end-game—for the champions among them who can take the reins. Then I politely and professionally get out of their way.

It was McCulloch, in fact, who pointed out that an interest in networking, with its formal and informal mentoring, learning from and sharing with colleagues, is probably an attribute of innovative practitioners in general. And sure enough, the moment I became sensitive to the value of networking as a source of fresh ideas and a support for new practice, I saw it in all the innovative practitioners. They have an almost instinctive drive to reach out to learn what others are doing and, in turn, to share what they are doing—sharing not simply because it is polite, but because talking about your own work and ideas is a way of better understanding them.

A final comment

This section began by claiming that the four fundamental attributes or sensibilities of innovative practitioners (being reflective, responsive and engaged with their industry, and engaged with colleagues near and far) are shared to some extent by most practitioners in the VET sector. If the goal of this and similar studies is to stimulate refreshed practice and the ongoing refreshing of practice across the VET sector, it would help to know which comes first: a practitioner’s basic set of sensibilities or their interest in changing practice?

There is a logic that says the fundamental attributes need to be right—that we need reflective, responsive, engaged practitioners—and innovation will follow. Herminia Ibarra, Professor at INSEAD graduate business school in Paris, makes a convincing case for reversing the conventional wisdom that urges us to reflect first, collect the evidence, plan and then act. She

argues that people are much more likely ‘to act their way into a new way of thinking than to think themselves into a new way of acting’ (Ibarra 2003, p.12).

Many of the people I spoke to confirm this interesting proposition—that our actions lead to new ways of thinking rather than thinking ourselves into new ways to act. That’s not to say that the innovators in VET teaching and learning blindly went into action without thinking first, not at all. But acting strengthened reflection, responsiveness and engagement. The following comment was not atypical:

The first year we were just trying to keep our heads above water and see what worked and what didn’t. We changed quite a few things ... and each year the group is different so we have to adjust. It got us thinking.

Or, as a printmaker once remarked to me: teaching is a case of building bridges while crossing them.

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Appendix: Interviewees

Andrew Adamson, Holmesglen Vocational College

Kris Andre, Blue Dog Training

Norm Baker, West Coast TAFE

Andrea Bateman, Bateman & Giles Pty Ltd

Brad Beach, GippsTAFE

Francesca Beddie, NCVER

Anne Bowden, New England Institute of TAFE

Ian Chapman, TAFE NSW Western Institute

Julie Collareda, TAFE NSW Sydney Institute

David Crean, TAFE NSW Western Institute

Phil Cue, TAFE NSW Wetherill Park College

Mary Cushnahan, Kangan Batman Institute of TAFE

Stephen Darwin, Canberra Institute of Technology

Sue Goodbourn, University of Ballarat, TAFE Division

Rosie Greenfield, Victoria University, TAFE Division

Hugh Guthrie, NCVER

Terry O'Hanlon-Rose, Australian Technical College

Janet Hewson, ICVET

Jeff Hoyle, West Coast TAFE

Mark Hunwicks, TAFE SA, Adelaide North

Robyn Jay, ICVET

Graeme Kirkwood, Institute of TAFE Tasmania

Greg Madden, ICVET

Carole McCulloch, Macro Dimensions

Kerryn Meredith-Sotiris, Institute of TAFE Tasmania

Pamela Morgan, New England Institute of TAFE

Jim Murray, TAFE NSW Western Institute

Terry O'Hanlon-Rose, Australian Technical College

Jennifer Oliver, Box Hill TAFE

Peta Pash, MEGA
Jane Sims, Box Hill TAFE
Sue Slavin, West Coast TAFE
Brian Smith, Wodonga TAFE
Clint Smith, LearnWorks
Melanie Sorensen, Challenger TAFE
Maret Staron, ICVET
Graeme Stuchbery, TAFE NSW Riverina Institute
Sandra Templar, Institute of TAFE Tasmania
Lisa Terry, TAFE NSW North Coast Institute
John Tucker, Small Business Solutions
Steve Wold, TAFE SA
Harriet Wakelam, West Coast TAFE
Mike Wallace, First Impressions Resources
Jan Wallbridge, Victoria University, TAFE Division
Peter Waterhouse, Workplace Learning Initiatives
Robby Weatherley, ICVET
Andrew Wilsmore, National Farmers' Federation



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